

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF THE CLAIMS:

1. (Cancelled).

2. (Cancelled).

3. (Currently amended) A microscope optical system, comprising:

an objective lens; and

an intermediate magnification varying part disposed just after an image side of said objective lens,

wherein said intermediate magnification varying part includes a lens group having a positive refractive power and a lens group having a negative refractive power,

in a high magnification variation state, said lens group having a positive refractive power is disposed just after the image side of objective lens, while in a low magnification variation state, said lens group having a negative refractive power is disposed just after the image side of the objective lens, and

said intermediate magnification varying part is constructed in such a way that its optical system is rotatable relative to an optical axis of the objective lens with an axis substantially orthogonal to ~~[[an]]~~ said optical axis of the objective lens being a rotation axis.

4. (Original) A microscope optical system according to claim 3, wherein said microscope optical system is provided with a connecting portion on the image side of said intermediate magnification varying part and the microscope optical system can be connected with a body of a microscope by means of said connecting portion.

5. (Currently amended) A microscope optical system, comprising:

an objective lens; and

an intermediate magnification varying part disposed just after an image side of said objective lens,

wherein said intermediate magnification varying part is constructed in such a way that its optical system is rotatable relative to an optical axis of the objective lens with an axis substantially orthogonal to ~~[[an]]~~ said optical axis of the objective lens being a rotation axis.

6. (Previously presented) A microscope optical system according to claim 5, wherein said microscope optical system is provided with a connecting portion on the image side of said intermediate magnification varying part and the microscope optical system can be connected with a body of a microscope by means of said connecting portion.

7. (Currently amended) A microscope optical system according to claim 3, wherein a magnification of the intermediate magnification varying part in said high magnification variation state is α and a magnification thereof in said low magnification variation state is $1/\alpha$.

8. (Previously presented) A microscope optical system according to claim 7, wherein said magnification α satisfies $1.25 \leq \alpha \leq 2.5$.

9. (Cancelled).

10. (Original) A microscope optical system according to claim 7, wherein said microscope optical system is provided with a connecting portion on the image side of said intermediate magnification varying part and

the microscope optical system can be connected with a body of a microscope by means of said connecting portion.

11. (Original) A microscope optical system according to claim 8, wherein said microscope optical system is provided with a connecting portion on the image side of said intermediate magnification varying part and the microscope optical system can be connected with a body of a microscope by means of said connecting portion.

12. (Withdrawn) A microscope objective lens comprising, in the following order from the object side, a first lens group and a second lens group, wherein:

said first lens group includes a positive meniscus lens with the concave surface facing the object side and one or more cemented lenses, said first lens group having a positive refractive power as a whole;

at least one of said cemented lenses includes a lens made of a material having an Abbe's number equal to or larger than 80; and

the following conditions are satisfied:

$$0.3 \leq wd/f \leq 0.45$$

$$0.6 \leq NA$$

where, f represents the focal length of said microscope objective lens as a whole, wd represents the working distance of said microscope objective lens, and NA represents the numerical aperture of said microscope objective lens.

13. (Withdrawn) A microscope objective lens according to claim 12, wherein said microscope objective lens has a magnification of 20x.

14. (Withdrawn) A microscope objective lens according to claim 13, wherein at least one of said cemented lenses comprises a cemented lens composed of three lens elements.

15. (Withdrawn) A microscope objective lens according to claim 14, wherein said lens made of a material having an Abbe's number equal to or larger than 80 is made of fluorite.

16. (Withdrawn) A microscope objective lens according to claim 12, wherein at least one of said cemented lenses comprises a cemented lens composed of three lens elements.

17. (Withdrawn) A microscope objective lens according to claim 16, wherein said lens made of a material having an Abbe's number equal to or larger than 80 is made of fluorite.

18. (Withdrawn) A microscope objective lens according to claim 13, wherein said lens made of a material having an Abbe's number equal to or larger than 80 is made of fluorite.

19. (Cancelled).

20. (Currently amended) A microscope optical system according to claim 5, wherein a magnification of the intermediate magnification varying part in said high magnification variation state is α and a magnification thereof in said low magnification variation state is $1/\alpha$.

21. (Previously presented) A microscope optical system according to claim 20, wherein said magnification α satisfies $1.25 \leq \alpha \leq 2.5$.

22. (Cancelled).

23. (New) A microscope optical system according to Claim 3, wherein an optical axis of said intermediate magnification varying part is aligned with said optical axis of the objective lens, and said intermediate magnification varying part is constructed to be rotated by 180 degrees about said rotation axis at a point on said optical axis of the intermediate magnification varying part to select one of said high magnification variation state and said low magnification variation state.

24. (New) A microscope optical system according to Claim 5, wherein an optical axis of said intermediate magnification varying part is aligned with said optical axis of the objective lens, and said intermediate magnification varying part is constructed to be rotated by 180 degrees about said rotation axis at a point on said optical axis of the intermediate magnification varying part.